jict	**JINYOUNG Contech Co., Ltd** Human-Computer Interface	Issued Date : 2010-01-10
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TFT LCD MONITOR VS120"	**USER'S MANUAL**

HUMAN-COMPUTER INTERFACE SOULUTION

VS120

Revision History

Date	Rev. No.	Contents	Page
10. 01. 10	1.0	Initial	

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1. Safety Precaution

-The safety recommendations outlined in this section are to be read, understood and followed before operating the product.

- Keep this information in a safe place for future reference. Failure to comply with any of the following safety procedures could result in serious hazard.

1.1. Set up and General Handling Precaution

1. Please set up the monitor in clean area where there is no dust.

2. Do not set up the monitor on shaky stand, on incline surface or surfaces subject to frequent vibration.

3. This monitor is intended for indoor use only.

4. Do not press heavily the TFT-LCD panel with sharp objects, such as nails.

5. When set up the monitor, be extremely careful. You may get injured from the sharp parts, such as steel covers

6. When transporting the monitor, hold the body with both hands and letting LCD screen goes up.

7. Do not lift the monitor up with holding LCD panel itself.

8. The fluorescence lamp of LCD panel includes mercury. Do not waste or bury illegally. When waste, follow the related laws and regulations.

1.2. Operating Precaution

1. Do not place the monitor in areas subject to direct sunlight and radiators or heat registers. Fire or electrical shock may result.

2. Do not cover the vents on the monitor cabinet. Bad ventilation may cause a breakdown or fire.

3. Do not remove cover(or back). This could result electrical shock. Refer servicing to qualified service personnel.

4. If you find any abnormal issue or failure while you are using this equipment, immediately unplug the power cable and contact your retailer or Jinyoung Contech Support Help Desk.

5. Do not take apart or modify the equipment for any purpose. Fire or electrical shock may result.

6. Never spill liquid of any kind on the monitor. Do not place in areas where there is high humidity and water splashes.

7. Do not plug in/unplug the power cable with wet hands.

Fire or electrical shock may result.

8. Do not plug the monitor into outlets with voltage other than the specified voltage. Incorrect voltage may result in fire or electrical shock.

9. Do not pull the plug out by the wire. This may cause an electric shock or fire.

10. Make sure that the power cable is firmly plugged in and not loose. Fire or electrical shock may result.

11. Unplug the power cable for safety when not in use the monitor for a long period of time, such as long weekend or moving it. If dust accumulates in this area, it may result in fire.

9. Do not connect too many extension cords or plugs to an outlet. Fire or electrical shock may result.

10. Use only a properly grounded plug and receptacle.

11. Do not spill flammable liquid on the monitor. Fire or electrical shock may result.

12. Set up the outlet in areas where close to the monitor, easily accessible and easily operative.

1.3. Cleaning of the equipment and management Precaution

1. Do not take apart or modify the monitor. Fire or electrical shock may result.

2. When cleaning the monitor, always unplug the power.

3. When cleaning the monitor, do not use flammable liquids, such as alcohol, benzene or thinners.

4. If you strongly wipe down the surface of the monitor with a sponge and a piece of cloth, in case of plastic equipment, the coating may be fallen away.

5. When cleaning the monitor case or the surface of the TFT LCD, wipe with a slightly moistened, soft fabric.

6. If the cleaning inside of the monitor is necessary, please contact Jinyoung Contech Support Help Desk.

2. Introduction

This unit is LCD monitor using TFT Color LCD. It basically supports Analog R,G,B signals.

This unit has OSD function for the best quality of display on characteristic of each VGA Card.

Touch screen is available by option as user's demand. Touch screen can be used with PS/2 Mouse at the same time.

♦ Graphics input Modes supported

Mode	Resolution	Horizontal freq.(KHz)	Vertical freq.(Hz)	Pixel Clock (MHz)
VESA MODES				
VGA	640 x 350 @85Hz	37.861	85.080	31.500
	640 x 400 @85Hz	37.861	85.080	31.500
	720 x 400 @85Hz	37.927	85.039	35.500
	640 x 480 @60Hz	31.469	59.940	25.175
	640x480@ 72 Hz	37.861	72.809	31.500
	640x480 @ 75 Hz	37.500	75.000	31.500
SVGA	800x600 @ 56 Hz	35.156	56.250	36.000
	800x600 @ 60 Hz	37.879	60.317	40.000
	800x600 @ 72 Hz	48.077	72.188	50.000
	800x600 @ 75 Hz	46.875	75.000	49.500
IBM Modes				
EGA	640x350 @ 70 Hz	31.469	70.086	25.175
CGA	640x400 @ 70 Hz	31.469	70.086	25.175
DOS	720x350 @ 70 Hz	31.469	70.087	28.322
DOS	720x400 @ 70 Hz	31.469	70.087	28.322
VGA	640x480 @ 60 Hz	31.469	59.940	25.175

3. Specification

DISPLAY

	Item	Description
Panel Features	Size	12.1"
	Resolution	SVGA
	Pixel Format	800 X 600
	Pixel Pitch	0.3075 x 0.3075 mm
	Number of Colors	6-bit, 262,144 colors
	Contrast Ratio	500: 1 (Typ)
	Brightness (cd/m^2)	400 cd/㎡ (Typ)
	Viewing Angle (L/R/U/D)	Typ 50/60/65/65
	Interface	LVDS
	Lamp Life Time	Min. 50,000 Hr

Input Signal	PC Connectivity	Analog RGB 0.7Vpp±10%, 75 Ohms
Display	Functions	OSD Functions
Power	Input Voltage Range	AC 100 ~ 240 VAC(50/60Hz)
	DC Input Adapter	DC 12[V] 3.5[A]
Environmental Considerations	Storage Temperature	-20 ~ 60°C
	Operating Temperature	0 ~ 50°C
Dimensions	W x H x D	366 x 290 x 44.5 mm
Weight		2.1 kg,

Touch Screen (Optional)	Touch Screen Technology	4-Wire Analog Resistive
	Interface	Serial RS-232
	Driver Software	

4. Block Diagram
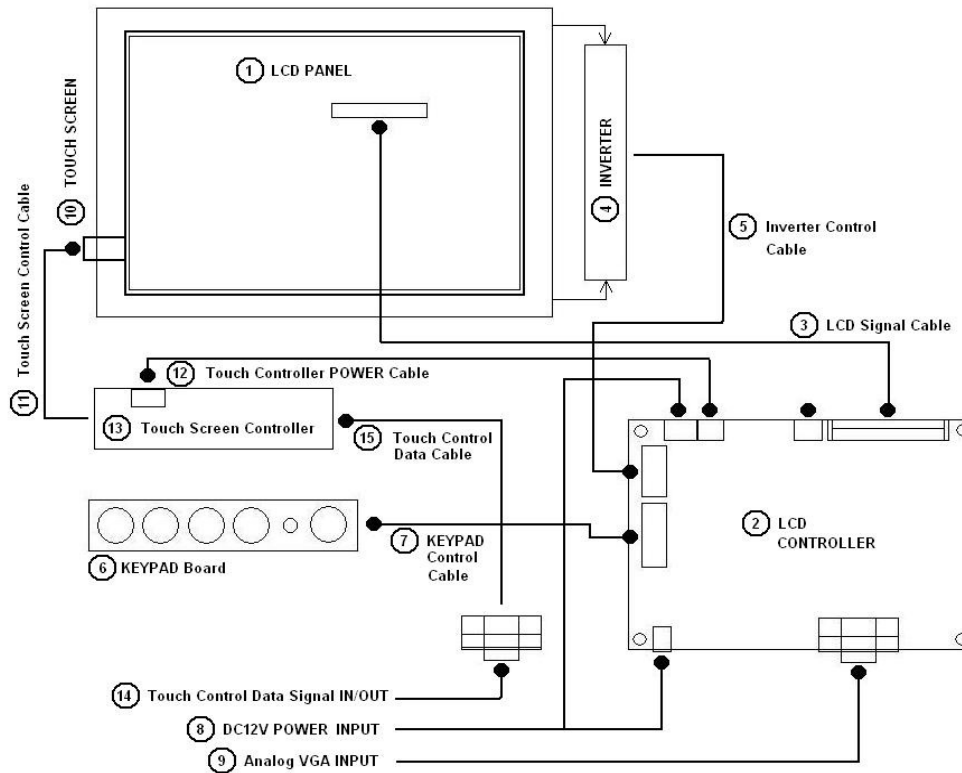
Note

1. LCD PANEL

2. LCD CONTROLLER CARD, JY-TXG300R

3. LCD Signal Cable

4. Inverter for backlight

5. Inverter Cable

6. Keypad Board, Function Control

7. Keypad Control Cable

8. DC12V Power Input(Adaptor or Power Module)

9. PC Analog VGA Input

10. Touch Screen Panel(Option)

11. Touch Data Input Cable(Option)

12. Touch Power Support Cable(DC12V or DC5V) (Option)

13. Touch Controller (option)

14. Touch Control DATA IN/OUT (Option)

15. Touch Controller Interface Cable (Option)

5. LCD DISPLAY SYSTEM Adjustments and Settings

Controls	Description	HOT KEY Functions
On/Off	Power on / off	
Menu	Open OSD Main Menu or Exit OSD Main Menu	
SEL	Select or operate Main item and sub item.	AUTO adjustment function (Analog Input Only)
UP	Increase setup value or move cursor up.	
DN	Decrease setup value or move cursor down.	Brightness Control
HOT KEY Function is only available while OSD menu is OFF.		

OSD B'D R11

✎   **OSD Function**

-    **Input Select Items :**

Menu button select :
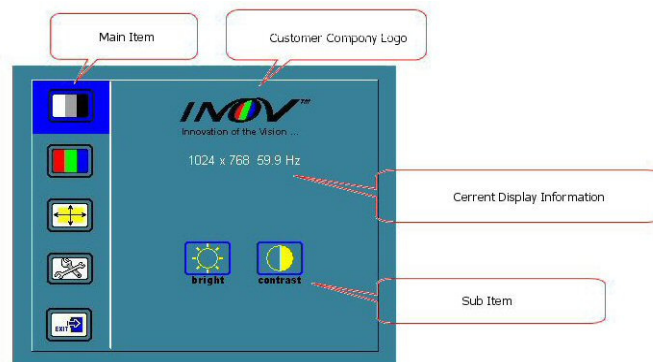
SEL button select :   Sub item select :
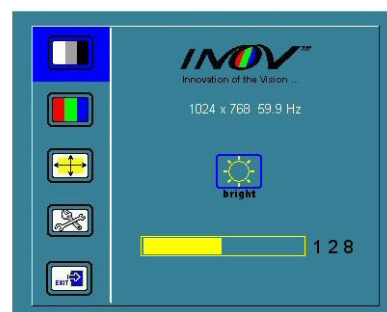
Bright & Contrast Item :

	Brightness Item	1 2 8	Adjust Panel Brightness Level.
	Contrast Item	1 2 8	Adjust Panel Contrast Level.

Color Control Item :
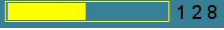
	ColorAdjust Item	OK / Cancle	Adjust Color Level Automatically. If the adjusted image is good, select "ok" or not, select "cancel" and adjust again.
	Super RGB Item	OK / Cancle	s-RGB mode
	Color Temperature Item	(userColor) 1 2 8 / 1 2 8 / 1 2 8	User can adjust warmness as user's please.
		4200K	
		5000K	
		6500K	Adjust the warmness of the image displayed.
		7500K	
		9300K	

Image Control Item :

|			
	Image Auto Adjust Item	OK / Cancle	Auto adjust H,V Position of image and Clock & Phase. If the result is good, select "ok" or not, select "cancel" and adjust again.
	H-Total Adjust Item	1 2 8	Adjust increase/decrease image of horizontal size
	Phase Adjust Item	1 2 8	Adjust data sampling position of image.
	H-Position Adjust Item	1 2 8	Move the image horizontally.
	V-Position Adjust Item	1 2 8	Move the image vertically.

OSD utility Item :

	OSD Adjust Item	OSD Display Time Adjust Item	Adjust OSD display time.
		OSD H-Position Adjust Item	Move the OSD menu horizontally.
		OSD V-Position Adjust Item	Move the OSD menu vertically.
	User Value Initial Item	Initialize user's set value	
	Image Sharpness Adjust Item	1 2 8	Adjust sharpness of the image.
	DOS Mode Select Item	Adjust DOS screen resolution to 640 x 400 or 720 x 400.	

	Menu Exit Item	OSD Exit	

Warning Message item

No Cable	No Cable	When PC VGA Cable doesn't connect to JY-LSX300.
No Signal	No signal	When there is no PC VGA Signal(R,G,B H-SYNC, V-SYNC)
Out of Range	Out of Range	This issue may occur if the signal from the video adapter exceeds the scan range of the monitor.

6. Connector

<AC Power Input Standard Type>
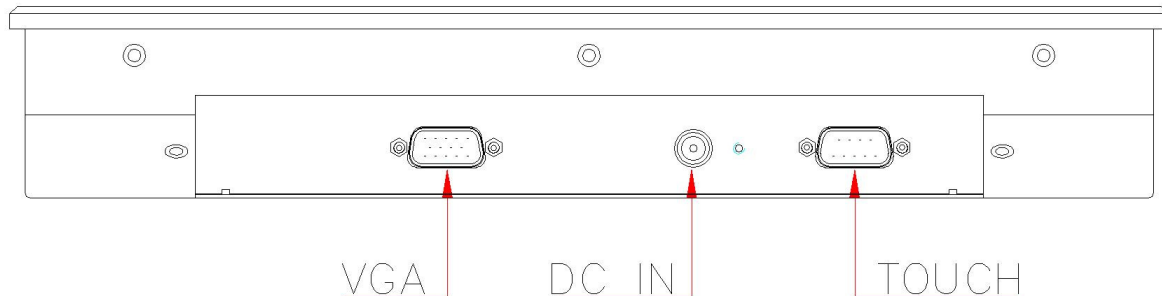
➤ **VGA analog Input** : DB-15 way high density 3 row

PIN	SYMBOL	DESCRIPTION
1	RED	Red, analog
2	GREEN	Green, analog
3	BLUE	Blue, analog
4	NC	No connection
5	CHK_CBL	VGA cable connection check
6	AGND	Analog ground red
7	AGND	Analog ground green
8	AGND	Analog ground blue
9	DDC5V	+5V power supply for DDC (optional)
10	GND	Digital ground
11	NC	No connection
12	D_SDA	DDC serial data
13	HS_IN	Horizontal sync or composite sync, input
14	VS_IN	Vertical sync, input
15	D_SCL	DDC serial clock

➤ **Touch Rs232 port :** DB-15 way high density 2 row

Pin	Signal	Pin	Signal
1	N.C	6	N.C
2	TXD0(To PC RXD Pin)	7	N.C
3	RXD0(To PC TXD Pin)	8	N.C
4	N.C	9	N.C
5	Ground		SHELL

➤ **Power :** DC 12[V] Input Jack

DC JACK	Description
+	DC 12V
−	Ground

PIN	DESCRIPTION
+	+ 12VDC In
-	Ground

7. Dimension

298
75
4-M4 TAP
231
75
77
95
239
306
27.5
6   45
(51)
VGA   DC IN   TOUCH

299.5
232.5
CUTTING SIZE